

PATENT
Serial No. 09/551,816

Amendment in Reply to Final Office Action of July 12, 2005

IN THE CLAIMS

Please amend claims 7-18 as follows:

Claims 1-6 (Cancelled)

1 7. (Currently Amended) A ~~primary radio mobile~~ station for use
2 in a communication system including a plurality of ~~secondary radio~~
3 ~~base~~ stations, said ~~primary mobile~~ station comprising:
4 a multi-directional controllable antenna structure operable to
5 transmit and receive radio signals;
6 acquisition means for acquiring data relating to at least one
7 of said ~~secondary base~~ stations from at least one radio signal
8 received by said multi-directional controllable antenna structure;
9 selection means for, based on the acquired data, conditionally
10 selecting at least an active ~~secondary base~~ station and
11 conditionally selecting at least an alternative ~~secondary base~~
12 station suitable for becoming active;
13 calculation means for calculating directions of signals
14 received from the selected ~~secondary base~~ stations;
15 storage means for storing the calculated directions; and

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16 control means for controlling said multi-directional
17 controllable antenna structure in dependence of the stored
18 directions.

1 8. (Currently Amended) The ~~primary-mobile~~ station of claim 7,
2 further comprising:

3 tracking means for tracking a direction of the active
4 ~~secondary-base~~ station with said multi-directional controllable
5 antenna structure.

1 9. (Currently Amended) The ~~primary-mobile~~ station of claim 7,
2 wherein said multi-directional controllable antenna structure
3 includes a plurality of directional antennas;

4 wherein the acquired data are quality data associated with at
5 least one ~~secondary-base~~ station/directional antenna pairing; and

6 wherein the active ~~secondary-base~~ station is the ~~secondary~~
7 ~~base~~ station associated with a ~~secondary-base~~ station/directional
8 antenna pairing having a highest quality data.

1 10. (Currently Amended) A method for controlling a multi-

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2 | ~~directional controllable antenna structure in a primary radio~~
3 | ~~mobile station~~ intended to communicate with a plurality of
4 | ~~secondary base~~ stations of a radio communication network, said
5 | method comprising:

6 | acquiring data relating to at least one of said ~~secondary base~~
7 | stations from at least one radio signal received by the multi-
8 | directional controllable antenna structure;

9 | based on the acquired data, conditionally selecting at least
10 | an active ~~secondary base~~ station and conditionally selecting at
11 | least an alternative ~~secondary base~~ station suitable for becoming
12 | active;

13 | calculating directions of signals received from the selected
14 | ~~secondary base~~ stations;

15 | storing the calculated directions; and

16 | controlling the multi-directional controllable antenna
17 | structure in dependence of the stored directions.

1 | 11. (Currently Amended) A method for controlling a multi-
2 | directional controllable antenna structure in a ~~primary radio~~
3 | ~~mobile station~~ intended to communicate with a plurality of

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4 | ~~secondary base~~ stations of a radio communication network, said

5 | method comprising:

6 | acquiring data relating to at least one of said ~~secondary base~~
7 | stations from at least one radio signal received by the multi-
8 | directional controllable antenna structure;

9 | based on the acquired data, conditionally selecting at least
10 | an active ~~secondary base~~ station and conditionally selecting at
11 | least an alternative ~~secondary base~~ station suitable for becoming
12 | active;

13 | calculating directions of signals received from the selected
14 | ~~secondary base~~ stations;

15 | storing the calculated directions; and

16 | controlling the multi-directional controllable antenna
17 | structure in dependence of the stored directions.

1 | 12. (Currently Amended) The method of claim 10,

2 | wherein the multi-directional controllable antenna structure
3 | includes a plurality of directional antennas;

4 | wherein the acquired data are quality data associated with at
5 | least one ~~secondary base~~ station/directional antenna pairing; and

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6 wherein the active ~~secondary~~base station is the ~~secondary~~
7 base station associated with a ~~secondary~~base station/directional
8 antenna pairing having a highest quality data.

1 13. (Currently Amended) A radio communication system,
2 comprising:

3 a plurality of ~~secondary~~base stations; and
4 a ~~primary radio~~mobile station including

5 a multi-directional controllable antenna structure
6 operable to transmit and receive radio signals,

7 acquisition means for acquiring data relating to at
8 least one of said ~~secondary~~base stations from at least one
9 received radio signal,

10 selection means for, based on the acquired data,
11 conditionally selecting at least an active ~~secondary~~base station
12 and conditionally selecting at least an alternative ~~secondary~~base
13 station suitable for becoming active,

14 calculation means for calculating directions of
15 signals received from the selected ~~secondary~~base stations,

16 storage means for storing the calculated directions,

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17 and

18 control means for controlling said antenna structure
19 in dependence of the stored directions.

1 14. (Currently Amended) The radio communication network of
2 claim 13, wherein said ~~primary mobile~~ station further includes
3 tracking means for tracking a direction of an active ~~secondary base~~
4 station with said multi-directional controllable antenna structure.

1 15. (Currently Amended) The ~~primary station radio~~
2 communication network of claim 13,

3 wherein the multi-directional controllable antenna structure
4 includes a plurality of directional antennas;

5 wherein the acquired data are quality data associated with at
6 least one ~~secondary base~~ station/directional antenna pairing; and

7 wherein the active ~~secondary base~~ station is the ~~secondary~~
8 base station associated with a ~~secondary base~~ station/directional
9 antenna pairing having a highest quality data.

1 16. (Currently Amended) A computer program for use in a

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2 | ~~primary radio mobile~~ station having a multi-directional
3 | controllable antenna structure and intended to be used in a radio
4 | communication network having a plurality of ~~secondary base~~
5 | stations, said computer program comprising computer program code
6 | means to make the ~~primary radio mobile~~ station:
7 | acquire data relating to at least one of said ~~secondary base~~
8 | stations from at least one radio signal received by the multi-
9 | directional controllable antenna structure;
10 | based on the acquired data, conditionally select at least an
11 | active ~~secondary base~~ station and conditionally select at least an
12 | alternative ~~secondary base~~ station suitable for becoming active;
13 | calculate directions of signals received from the selected
14 | ~~secondary base~~ stations;
15 | store the calculated directions; and
16 | control the multi-directional controllable antenna structure
17 | in dependence of the stored directions.

1 | 17. (Currently Amended) The computer program of claim 16,
2 | wherein said computer program further comprises computer program
3 | means to make the ~~primary radio mobile~~ station track a direction of

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4 | the active ~~secondary-base~~ station with the multi-directional
5 | controllable antenna structure.

1 | 18. (Currently Amended) The computer program of claim 16,
2 | wherein the multi-directional controllable antenna structure
3 | includes a plurality of directional antennas;
4 | wherein the acquired data are quality data associated with at
5 | least one ~~secondary-base~~ station/directional antenna pairing; and
6 | wherein the active ~~secondary-base~~ station is the ~~secondary~~
7 | ~~base~~ station associated with a ~~secondary-base~~ station/directional
8 | antenna pairing having a highest quality data.

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